

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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[Handwritten signatures]
PCT

29.01.2005

WRITTEN OPINION

(PCT Rule 66)

Date of mailing
(day/month/year)

22.10.2004

Applicant's or agent's file reference
P/63751/SDI

REPLY DUE

within 1 month(s)

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International application No.
PCT/IB 03/05605

International filing date (day/month/year)
29.09.2003

Priority date (day/month/year)
30.09.2002

International Patent Classification (IPC) or both national classification and IPC
H04L12/24

Applicant
MARCONI INTELLECTUAL PROPERTY (RINGFENCE) INC. et

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I Basis of the opinion
 - II Priority
 - III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 30.01.2005

Name and mailing address of the international preliminary examining authority:



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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-13 as originally filed

Claims, Numbers

1-43 as originally filed

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

5. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

| | | |
|-------------------------------|--------|------------------------------|
| Novelty (N) | Claims | 1,3-6,9-15,19-21,32-36,40-43 |
| Inventive step (IS) | Claims | 1-43 |
| Industrial applicability (IA) | Claims | |

2. Citations and explanations**see separate sheet**

Re Item V

1 Reference is made to the following documents:

D1: US-A-5 261 044 (DEV ROGER H ET AL) 9 November 1993
D2: US-A-5 991 264 (CROSLIN WILLIAM D) 23 November 1999
D3: US-B-6 199 1721 (ARSENault MICHAEL ET AL) 6 March 2001

2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 3-6, 9-15, 19-21, 32-36 and 40-43 is not new in the sense of Article 33(2) PCT and because the subject-matter of claims 2, 7, 8, 16-18, 22-31 and 37-39 does not involve an inventive step (Article 33(3) PCT).

2.1 INDEPENDENT CLAIM 1

Document D1 discloses in terms of claim 1 (the references in parenthesis applying to this document):

A method of monitoring the status of one or more network elements NEs linked together in a telecommunication network (column 3, lines 15 - 29), comprising receiving a down status notification from a NE in the network (column 5, lines 27 - 40 and column 7 lines 54 - 59), identifying one or more other NEs which are linked to the NE (column 11, lines 17 - 24 and column 11, lines 34 - 43), polling the or each other NE to determine the status thereof (column 11, lines 20 - 28 and column 11, lines 40 - 53).

Since all the features of claim 1 are known in combination from document D1, the subject-matter of claim 1 is not new (Article 33(2) PCT).

It is noted that the lack of novelty of claim 1 may as well be demonstrated along the disclosure of documents D2 and D3 (see passages cited in the international search report).

2.2 INDEPENDENT CLAIMS 35, 40 and 42

Claims 35, 40 and 42 are representations of claim 1 covering essentially the same-subject matter with different terminology, in terms of respectively a

computer program product, a system and a computer readable medium. Therefore the above arguments with respect to lack of novelty of claim 1 similarly apply to claims 35, 40 and 42. Consequently, the subject-matter of claims 35, 40 and 42 is not new (Article 33(2) PCT).

2.3 The feature "whose operation is directed by the computer program product according to any of the claims 35 to 39" does not imply any technical features which are limiting the scope of the independent computer system claim 41 (Article 6 PCT).

Also the feature "encoding a program of instructions for executing the method according to any of claims 1 to 34" does not imply any technical features which are limiting to the scope of the independent program storage device claim 43 (Article 6 PCT).

Hence the subject-matter of the above mentioned claims, 41 and 43, is not novel, see e.g. in D1 column 4, lines 58-67 for claim 41 and respectively column 4, lines 13-18 for claim 43 (Article 33(2) PCT).

2.4 Dependent claims 2-34 and 36-39 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect to novelty and/or inventive step (Article 33(2) and (3) PCT), the reasons being as follows:

2.4.1 The additional features of claims 3-6, 9, 14, 15, 19-21, 32-34 and 36 are already known from the document D1:

- Claims 3 and 4 see column 10, line 62 - column 11, line 11;
- Claim 5 see column 11, lines 17-25 and lines 34-43;
- Claims 6, 14 and 15 see column 4, lines 18-31 and column 7, lines 25-39;
- Claim 9 see column 8 lines 21-32;
- Claims 32 and 33 see column 2, line 53 - column 3, line 28;
- Claim 34 see column 5, lines 44-48.

The subject-matter of claims 3-6, 14, 15, 19-21, 32-34 and 36 is therefore not new (Article 33(2) PCT).

2.4.2 The additional features of claims 10-13 are already known from document D2 see column 4, line 52 - column 5, line 8 and column 7, line 50 - column 8, line 34. The subject-matter of claims 10-13 is therefore not new (Article 33(2) PCT).

2.4.3 The additional features of claims 2, 7, 8, 16-18, 22-31 and 37-39 are a matter

**WRITTEN OPINION
SEPARATE SHEET**

International application No. PCT/IB 03/05605

of normal design procedure for a man skilled in the art of network monitoring. Therefore the subject-matter of claims 2, 7, 8, 16-18, 22-31 and 37-39 does not involve an inventive step (Article 33(3) PCT).



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3 December, 2004

Your Ref: PCT/IB 03/05605

Our Ref: P/63751.WOP/SDI/AF/af

URGENT
VIA FACSIMILE, CONFIRMATION BY AIR MAIL

Dear Sirs,

International Patent Application Number IB 03/05605 (WO 04/030277)
In the name of Marconi Intellectual Property (Ringfence) Inc

Further to your Written Opinion of 22nd October 2004, the Examiner is respectfully requested to reconsider the Claimed invention in light of the applicant's interpretation of the prior art documents D1, D2 and D3.

It is the applicant's view that D1 illustrates Network Elements represented as software models (column 5, lines 27 to 60) and the primary technique for obtaining network information is polling of the Network Elements (column 7, lines 32 to 34). Another technique for updating network status information is for the software models to transmit information upon the occurrence of significant events without polling of the Network Elements (column 7, lines 54 to 58) to the Network Management System. When a model loses contact with its respective network it informs the Network Management System, which in turn, uses a technique known as "status suppression" to determine which network element of a model is at fault by instructing the model to poll all its respective Network Elements (column 11, lines 12 to 61).

This is not the same as the presently claimed invention, wherein a first Network Element informs some part of the telecommunication network, for example a Network Management System, of the failure of one of its neighbouring Network Elements. The Network Management System can then determine the neighbouring Network Elements connected to the first Network Element and poll those neighbouring Network Elements to find the at fault Network Element. This has the advantage that not all Network Elements need to be polled, as only those that could be at fault need to be polled. Theréby, saving time, processing resources and network capacity when sourcing faulty Network Elements. Clearly D1 does not disclose a Network Element informing on a faulty neighbouring Network Element to trigger a search of neighbouring Network Elements and polling of such neighbouring Network Elements, by for example the Network Management System, to determine which neighbouring Network Element is at fault. Nor does the disclosure of D1 render the presently claimed invention obvious, as it is the software model of D1 that triggers the Network Management System to request that the software model to poll all its respective Network Elements to determine the at fault Network Element.

Prior art document D2 relates to determining faults in links between nodes via the generation of alarms by two or more nodes of the network and the network control system determines the location of the outage from these alarms (column 3, lines 59 to 67). Again D2 does not disclose the invention of a

Network Element informing on a faulty neighbouring Network Element to trigger a search of neighbouring Network Elements and polling of such neighbouring network elements, by for example the Network Management System, to determine which neighbouring Network Element is at fault. D2 does not render the presently claimed invention obvious as the network control system of D2 uses all the alarms to determine which link is at fault (column 9, lines 9 to 56) rather than polling of known neighbouring Network Elements to determine which of neighbouring Network Elements is at fault.

D3 also does not disclose the invention as it relates to use of a proxy device to determine whether or not a second network element is contactable via another route (column 3, line 24 to column 4, line 14).

Furthermore, nothing in the teachings of D1, D2 or D3, whether used independently or in combination, would lead a skilled person to the invention as now claimed.

Therefore, the applicant asserts that the invention as claimed in the independent Claims 1, 35, 40 and 42 is both novel and inventive over the prior art citations D1, D2 and D3.

Yours faithfully,



Ian Collier

European Patent Attorney